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PROCEEDINGS
OF THE
AMERICAN SOCIETY OF MICROSCOPISTS.

MINUTES OF THE TWELFTH ANNUAL MEETING,

Held at Buffalo, N. Y., August 20, 21, 22 and 23, 1889.

TUESDAY, August 20, A. M. Session.

When the meeting of the Society was called to order, about 10 o'clock A. M., there were some sixty persons present, a number being citizens of Buffalo. Dr. Lee H. Smith called the assembly to order, and, after a few words, introduced the Rt. Rev. A. Cleveland Coxe, who offered prayer.

Dr. Lee H. Smith, President of the Buffalo Microscopical Club, then introduced the Hon. David F. Day, as President of the Society of Natural Sciences of Buffalo, who made the following address of welcome :

ADDRESS OF THE HON. DAVID F. DAY.

Mr. President :

Permit me to detain you and your associates of the American Society of Microscopists for a few moments, from the business which has called you here, while I discharge a duty, which, through the partiality of friends, devolves on me this morning. I am deputed by the Microscopical Club of Buffalo to bid you a welcome to this city. They are engaged, as you are, in one of the most attractive departments, not only of natural science, but of human knowledge. They are investigators, like yourselves, of that other world, which lies around and within us, concealed, indeed, to the natural eye, but revealed to us as a world full of beauty, wonder, interest and utility through the agency of the microscope. There are in the Microscopical Club of Buffalo some whose reputations, as men of science, have extended beyond the seas, and whom you will remember as among those who have heretofore taken an ample and honorable part in the labors which have distinguished your Society. They have looked forward to your coming again to this city with the greatest pleasure ; and they early resolved that during your sojourn here nothing essential to your happiness and within their power to provide should be wanting. If it should prove that they have failed in their endeavors (an event which I do not apprehend), their regret, I do not doubt, would be far

greater than your own. They now place at your disposal their apartments in this temple, dedicated to science, letters, history and the fine arts; and they invite you, most cordially invite you, to make such use of all the property of the club as shall best contribute to the purposes which have brought you here.

More than this: At their request, the Buffalo Society of Natural Sciences to-day throws wide open its doors and bids you enter and possess whatever is here which will minister in any degree to your pleasure or convenience, during your stay among us.

At the like request, the Buffalo Library offers to your use, while you are here, its rooms for study and discussion—its library of 60,000 volumes and the priceless treasures which belong to it, and in which your cultivated and æsthetic tastes may find enjoyment. Our Historical Society, another one of the occupants of this majestic building, gladly responding to the same call, asks you to make whatever use you can, while you are our guests, of their books, papers and collections, "rich with the spoils of time." The Buffalo Academy of Fine Arts, also a tenant of this edifice, not to be excelled in liberality by its sister societies, asks you to give such attention as may be within your power to its collection of paintings and objects of art. And there, I do not doubt, even those of you who are familiar with the more extensive galleries of older cities may yet find very much to gratify that love of the beautiful which characterizes, in so eminent a degree, the man of science and the lover of learning.

In the name, then, of all these associations, distinct in organization, but one in the exalted purpose of elevating the minds of men, I bid you a most cordial welcome here.

But I should feel that I had not wholly discharged my duty on this occasion if I did not also speak for the good people of this fair city. They also give you a most hearty greeting. Not to-day alone, but always, have they found pleasure in the entertainment of worthy men who have come within their gates. That you are strangers, visiting our city for an honorable purpose, is a sufficient passport to their hospitality and kindness. But that you are men of science commends you to their entire respect and most favorable attention. They have already testified, and most conclusively, how great and wide has been their regard for literature, for science and for art. This noble structure proclaims to you how great was their regard for the increase and diffusion of knowledge in this place. This building, and the museum, the library and the collections of art which it contains, must speak to you most eloquently of the liberality of the people of Buffalo. No part of this property, nor yet of that other costly structure, the Hotel Iroquois, which is intended to furnish the revenue by which the library is ultimately to be supplied, has been wrung from the taxpayers of the city. It does not represent in any degree the bounty of our municipal government. Nor does it stand a monument to the beneficence of one or two. But it stands, as indeed it should, a lasting testimonial of the love which our good citizens have borne, and which they still bear, towards those three great agencies of culture, literature, science and the fine arts.

The people of this city feel that Providence has cast their lines in a pleasant place. You have heard, no doubt, of Buffalo zephyrs, and perhaps have learned to dread their keen edges; but we, who are accustomed to them, regard them differently. We know that they are angels, bringing "healing on their wings." To their influence we attribute the fact that the death-rate in Buffalo is less than any other city on the globe. I use not the language of vain boasting. The census tables and the mortality reports will verify my statement. These dreaded winds are what give to our summer that delightful coolness with which you are already acquainted, and which, I know, you already enjoy.

Our situation is at the foot of Lake Erie. Here the commerce of the upper lakes practically terminates—for the great lumber mart of Tonawanda is, in all its business relations, a portion of Buffalo. What the Nile was to ancient Egypt, Lake Erie is to Buffalo and its contiguous country. It is the source and fountain from which their strength and wealth are drawn.

Here is where the Niagara begins. The city derives its water supply from its pure and unpolluted stream. Fill a goblet with the clear element and you will confess that the water of the Niagara is fairer and more beautiful than the crystal which contains it. I am glad that the determination, which you reached last evening, was that you would accept our invitation to spend some hours with us upon this majestic stream. In those portions of it which we shall visit you will find it like the river which Denman, in his classic lines, portrayed :

" Though deep, yet clear, though tranquil, yet not dull;—
Strong without rage, without o'erflowing, full."

I hope that before you leave the precincts of our city you will be satisfied that our people have a full appreciation of the advantages with which nature has surrounded them, and that in some measure they are worthy of their fortune.

You know something of our public buildings, our schools and our churches. I trust that before you leave you will know more of them. We have here a population of more than 250,000 souls. I have told you how munificently the institutions which find their homes beneath this roof have been endowed. We have here more than one hundred miles of paved streets, many of them asphalt. We have a park of some six hundred acres, which, if it cannot vie with those of eastern cities in architectural embellishment, is yet of unique and quiet beauty. I trust that you will pay it a visit before you leave us.

Near by the park—in fact, passing through it, and adding a great charm to its landscape—is Scajaquady Creek, a stream made classic by one of your *confrères*, now, alas! not a citizen of Buffalo. But he is here to-day as a member of your Society, and I will leave it to him, when the proper time shall arrive, to enthral you with the marvellous story of what infusorial beings dwell, luxuriate and disport themselves in the placid waters of Scajaquady Creek.

If you will ascend to the roof of the Hotel Iroquois, where so large a number of you, I know, find your present abode, you will see spread out on every side the map of Buffalo and its vicinity. It will tell you the story better than I can tell it,

of the industry, the thrift, the wealth of Buffalo, and it will confirm everything I have said of its situation. To the southeast, and distant scarcely fifty miles, stretches a line of highlands, bluer than the sky that makes the background of the picture. They are the Alleghanies as they enter the State of New York. Will it surprise you when I tell you that they are only three hundred feet lower than the highest peaks of Pennsylvania? There, too, is Chautauqua Lake—a liquid diamond set in emerald. To the south and west of you are the lake and river, of whose attractions I have already faintly spoken. And to the north of us, hid indeed by intervening objects, are the Falls of Niagara, and the stupendous cañon which it has excavated in the solid rock. Still further on is Lake Ontario, where the waters of the river, wearied as it were by toil, find rest at last. These are some of the surroundings of Buffalo. I beg of you to become acquainted with them so far as it may be within your power.

But I must not detain you longer. I have only to repeat in simplest phrase, the wish, to which I have tried to give expression, that while you remain among us, you may feel yourselves entirely at home. Nothing will please us better.

President Lewis responded in fitting terms, referring to the growth of the society, which was an infant when it met in Buffalo just ten years ago, plus one day, the present being the twelfth annual session.

Having thus opened the convention, the programme for the morning was entered upon after a brief recess.

The following were elected to membership: Wm. C. Krauss, M. D., Buffalo, N. Y.; Forrest W. Brayton, M. D., Carey, Ohio; Fred S. Marsh, Ph. G., and Herman L. Gifford, Jamestown, N. Y.; Frederic G. Perry, 6 Hamilton Place, Boston, Mass.; Wm. N. Bahrenberg, St. Louis, Mo.

The first paper read was upon

A Microscope Stand.—T. J. Burrill. (See page 53.)

In the discussion which followed, Professor Kellicott in the main agreed with the conclusion of the paper. Thinks a stand should be used when practicable in the inclined position, but makes much allowance for habit. Prefers the ten-inch tube, and commends the placing of diaphragms so as to catch any particles of falling dirt. Has used and rather prefers a square stage.

J. D. Hyatt would have a circular concentrically revolving stage, and for some work it is a necessity, as in lithological studies. Has found it difficult to get a concentric stage truly centered and to keep it so.

Professor W. A. Rogers emphasized the value of the rack and pinion. Said he would much rather do without the slow motion than without this, for a good rack and pinion can be made to answer both purposes.

W. H. Walmsley also commended the rack and pinion, but would have the milled heads, two and a half inches in diameter.—Fine adjustment must move whole body; a nose-piece movement must be considered obsolete. Would prefer circular stage, as easier made and better. Thinks it can be truly concentric in movement.

Dr. Geo. E. Fell thinks it is impossible to settle the matter of choice or advantage of peculiar forms of stands through a discussion of this nature, because some will prefer one kind and some another, according to the special use to which it may be put. In some work, as in the examinations of legal documents, a large stand or stage is a great convenience. When mechanical appliances can be made really serviceable, they should be used. Slow motion is of value and especially necessary for beginners.

Prof. Rogers would have rack and pinion with a little "lost motion." Students can very soon learn to use this with great delicacy of movement.

Mr. Geo. S. Woolman would define "student" in this case as a beginner, and the stands so called are intended for those who can not or will not purchase those of higher price. Would have medium length of tube, and adjust with draw tube. Thinks all should know about Abbe's sub-stage condenser, and other forms, and thinks it important that these condensers should have rack and pinion adjustment. There is no harm in having a little play in rack and pinion.

Adjourned.

T. J. BURRILL,
Secretary.

AFTERNOON Session.

Meeting called to order by President Lewis.

The first paper read was:

Method of Determining Temperature from the Readings of Mercurial Thermometers.—W. A. Rogers. (To be published in a later volume of Proceedings.)

This paper was discussed by the President, Prof. Kellicott, Drs Fell, Miller and Taylor.

In reply to questions, Prof. Rogers said he had not pursued the problem much farther than indicated in his paper. As to the cause of the phenomena, he had not the slightest idea. The glass used by different makers evidently was not the same, but the thermometers of one manufacture had similar characteristics. Could not say what effects adherent films of air or surface tensions of liquids had,—offered observations not explanations. It is safest to compare thermometers when the temperature is going up or down, and not too slowly.

The next paper upon

Staining and Permanent Preservations of Histological Elements, isolated by means of Caustic Potash.—Prof. S. H. and Mrs. S. P. Gage, was read by Dr. F. L. James. (See page 34.)

A paper was then presented upon

Forms of Bacteria on the Normal Eye.—Dr. Lucien Howe. (See page 120.)

Discussed by T. J. Burrill and Thomas Taylor.

Dr. Taylor urged the appointment of a committee of three to consider the relations of the micro-organisms of the human eye with those of the horse.

Dr. Howe favored the reference to a committee, and stated that there existed a large amount of literature upon the subject.

Prof. Rogers opposed the committee of reference. The Society could not settle any scientific question. These things must be left to experts and those best fitted to pass judgment. Question referred to executive committee.

The next paper was upon:

A New Rotiferon.—Prof. D. S. Kellicott. (See page 32.)

Adjourned.

T. J. BURRILL,
Secretary.

EVENING Session.

A good audience assembled in the library building to listen to the annual address by the president, Wm. J. Lewis, M. D., upon *Forensic Microscopy, or the Microscope in its Legal Relations* (see page 5), Vice-president Dr. F. L. James occupying the chair.

WEDNESDAY, August 21, A. M., Session.

At 10 A. M., the meeting was called to order by President Lewis.

In the absence of the Secretary, Professor D. S. Kellicott was appointed to fill the office *pro tem*.

The following named persons were elected to membership: A. T. Elwell, Council Bluffs, Ia.; Prof. John A. Miller, Buffalo, N. Y.; Carl Schnur, Warren, Pa.; J. G. Garretson, Buffalo, N. Y.; C. F. Horning, Pittsburgh, Pa.; T. J. Tingley, M. D., Pittsburgh, Pa.

The following was proposed by Dr. James as By-Law VII:

Any member failing to pay his dues for three consecutive years shall be dropped from the roll of members with the privilege of reinstatement at any time by payment of all arrears; and the annual proceedings shall not be sent to any member whose dues are unpaid.

On motion of Dr. Ward this was unanimously passed.

Dr. Lucien Howe extended an invitation to the members of the Society to meet at his residence this (Wednesday) evening in a social way.

The first paper read was:

A Practical Method of Securing Copies of the Standard Centimeter Designated Scale "A"—Professor W. A. Rogers. (See page 109.)

In the discussion following, Dr. Ward explained that Professor Rogers had generously offered to rule some copies for the Society, but from various reasons it had not been done. Prof. Marshall D. Ewell now owned the original machine used by Prof. Rogers, and had made a similar offer, the work to be without expense to the Society, except for the glass. He therefore moved the adoption of the following:

That the standing committee on Micrometry accept Prof. Ewell's offer to rule a reasonable number of copies of Scale "A" for distribution by the Society to other microscopical societies, and that a plan for the distribution of the same be reported, if possible, before the adjournment of this meeting.

Dr. Seaman offered the following substitute, which was referred to the Executive Committee:

Resolved, That the Committee procure from Prof. Ewell and Mr. Fasoldt 12 plates each, to be paid for from the funds of this Society, and that the Committee have them compared and suggest a plan to issue the same when compared to local societies.

The next paper was upon

A Simple and Efficient Deposit Glass.—Dr. Geo. E. Fell. (See page 139.)

Then came a paper read by title on:

The Behavior and Appearance of Tempered Steel (Cutlery) under Honing.—Dr. F. L. James. (MSS. not presented for publication this year.)

A discussion upon the paper read the day before by T. J. Burrill was then continued.

Dr. James remarked that the idea had been advanced, that a man will use by preference, or rather prefer, that instrument to which he is most accustomed. With this he disagreed. On the contrary, the longer a man works with an imperfect instrument the more annoying the defects become and the more anxious he is to remedy them. In his own case, for instance, he used for upwards of twenty years a Nachet stand (No. 2), made to order by Nachet in 1861. The instrument had every accessory furnished in those days, but after using it as stated he set it aside the moment he felt able to purchase an instrument free from the defects inherent in Nachet constructions, and at which he had so long fretted. He has now used for five years a Bausch & Lomb universal stand, with rack and pinion, sub-stage adjustment. As regards the necessity of a joint and the natural tendency of beginners to work with the instrument in its inclined position, he cited an incident in his own experience. Some of his students purchased cheap German stands unprovided

with a joint. After working with his instrument a few days one of the boys came to him one morning with a couple of boards ten inches square, hinged together on one side so as to permit the upper one to be set at any desired angle, for a foot to the instrument. In a week every student had a similar arrangement and worked with the instrument inclined.

Geo. S. Woolman favored such a microscope stand as was described in the paper, but differed in the word student as used in the catalogue. The beginner cannot usually buy the best instrument. He must take a cheaper one; then when his interest is awakened and the means procured, buy another. American makers have, within recent years, greatly improved the smaller stands, and have also greatly reduced the price.

Dr. Taylor agreed with the last speaker. Specialists should state what they want. Makers are always willing to please their patrons and will try to suit them.

Professor Rogers designed and had made for himself a stand to suit his work. He explained why a screw, being turned and not ground, would not permit different objectives taking the same center.

Dr. Ward explained what he saw in laboratories of continental Europe. As each of these is organized by a professor, there are many personal preferences and local ideas brought out. Students who work in these laboratories come to this country knowing no other instruments and are likely to continue use of same. European students are loyal to their own dealers. Usually the makers supply what is called for. A joint for inclination should be considered essential. Round stages are equal in every way to square and have some advantages, as for rotation, the second stage being more easily adjusted.

Dr. McIntosh said makers cater to the requirements of trade. Could not sell instruments without a joint, and so did not make them. Round stages are more easily made than square ones. American instruments are certainly superior to those of foreign manufacture.

Dr. Seaman referred to his article in *Science* more than a year ago. We now demand of our microscopes more and different work than was required a few years ago. The use of a condenser in the study of bacteria is an instance. Now a "professional" microscope must be fitted with this accessory, and hence must be high enough to receive it. He advises students to purchase stands that may be subsequently fitted with accessories for any advanced work when the purse and needs indicate.

Dr. Taylor. The suggestion of Dr. Seaman is not practical. It is better for students to first get a cheap stand; few pursue the work after they leave school; the best get a start and afterward secure better instruments.

Adjourned.

D. S. KELLICOTT,

Secretary pro tem.

WEDNESDAY, P. M Session.

The Society assembled at 2 o'clock with President Lewis in the chair.

Owing to the enforced absence of the Secretary and failure otherwise to have notes taken, the discussions for this session cannot be fully reported.

The following papers were read:

Microscopical Examination of and Experiments with Glandular Secretions according to Method of Dr. Brown-Sequard.—Dr. George E. Fell. (See page 115.)

Dr. Lucien Howe emphasized the necessity for care in such work. He would expect to soon find a few bacteria in the fluid. The gelatine contained the spores that would develop them. As to results, he thought it hardly fair, from a medical standpoint, to draw any inferences from half a dozen cases, or from twice or three times that number. He referred to two experiments made in a similar way, except that a high degree of heat was used, as in sterilizing other fluids from bacteria. The next day the patients said they felt much as before, and asked what had been done to them. Dr. Howe entered a strong protest against the injection of any animal substance without extreme precautions.

Dr. James, of St. Louis, said if any other man but Brown Sequard had fathered this thing it would have been dismissed as an evidence of second childhood. After the first mysterious report it was learned that Dr. Brown Sequard did not claim to have found an elixir of life, but the means of introducing into the aged a living principle which would partly stop the advance of decrepitude. At the end of a month, after using the injections, he found himself back where he was when he began them. He claimed far less than had been claimed for him. The matter had again demonstrated the gullibility of human nature.

Dr. Lee Smith thought the gentlemen should be thankful for the cases they had presented. To determine the benefit, if any, must take time. The theory seemed to be a cell formation, or re-formation, and some time must elapse before improvement could be apparent. As regarded the gullibility of human nature, they should be thankful that there was a disposition to try to learn what truth might be contained in these new propositions.

Microscopic Investigations Relating to Tea and its Adulterations.—Dr. Thomas Taylor. (See page 46.)

Researches on the Anatomy of Amphistomum Fabaceum, Diesing.—J. M. Stedman. By title. (See page 85.)

A new form of Microscope.—W. A. E. Drescher. (See page 131.)

A Busy Man's Amateur Microscopical Laboratory.—Martin S. Wiard. (See page 126.)

A New Collecting Net.—Charles F. Fellows. Presented by Prof. Kellicott. (Not published in this year's Proceedings.)

Adjourned.

T. J. BURRILL,
Secretary.

THURSDAY, August 22, A. M. Session.

President Lewis in chair.

After free nominations, a committee on nomination of officers for the ensuing year was elected as follows:

T. J. Burrill, D. S. Kellicott, R. H. Ward, F. L. James, W. H. Walmsley, C. C. Mellor, W. A. E. Drescher.

The following were elected to membership: Franklin Selleck, Mrs. Catherine B. Lewis, Edward D. Hall, A. J. Gawne, H. S. Brode, Dr. Frank W. Ross.

A paper was read on

The best Technique for High Power Photomicrography.—George M. Rafter. (See page 112.)

A lengthy discussion ensued, which is abstracted as follows: Dr. Detmers admired the skill and ingenuity of the lecturer, but thought few could afford such expensive apparatus. He gets good results with a Huyghenian eye-piece, but had not succeeded well with an amplifier. The screw collar of the objective must be correctly used.

Dr. Taylor took part in the discussion, but his remarks were not heard by the Secretary.

At this juncture, Dr. Fell rose and asked leave to offer a motion, which was accorded, and the following was adopted: That a cordial invitation be extended to the members of the American Florists Association to attend the microscopical exhibition this evening. Dr. Fell was made messenger to convey to the Florists this invitation of the Society.

Continuing the discussion of Mr. Rafter's paper, Dr. Mercer said the reader of the paper had not received the thanks he deserved for the presentation. For himself he asserted that he was much gratified. Dr. Woodward, whose work still stood unsurpassed, used and commended the amplifier. The length of tube does make a difference with the action of the microscope, and he was glad to have the matter so well presented.

Dr. Blackham: Dr. Woodward did conclude that the amplifier was a necessity with the objective; he used a Zeiss oil immersion without collar. But Dr. Woodward had the United States behind him, and money was little considered as counting against con-

venience, etc. It could not be that an objective made for use with a Huyghenian eye-piece would work better with something else, if the worker knows how to use the instrument. The collar correction must be carefully used. The pictures of Dr. Cox confirms the idea of best results with eyepieces.

Dr. Taylor: It is not fair to state that Dr. Woodward was backed by the treasury of the United States. It was very seldom that Dr. Woodward or anyone else could get the means required to do the best work in an office under the government. Dr. Salmon is now the only man who is thoroughly equipped.

Dr. Mercer: The moment you attempt to take a photographic picture with an eye-piece, you change the normal conditions of the instrument. When adjusted for vision, the rays of light leave the eye-piece, diverging from each other; but in photographing they must be made to converge to a focus on the sensitive plate. The collar may possibly be readjusted so as to meet this change, but was not sure. With a long bellows some special means of making such adjustment would be required.

Dr. Blackham: The rays should leave the eye-piece parallel, or nearly so, and no re-adjustment should be needed.

Dr. Mercer thought this could not possibly be. The rays by which an object is seen through a compound instrument cannot form a picture for photography.

T. J. Burrill: But it is possible to adjust the distance of the screen, so that no change whatever is required after obtaining the best focus with the eye applied to the eyepiece. The reason for this he was not able to explain.

Mr. Rafter offered thanks for the discussion, but would like to observe that because an objective was made to use with a Huyghenian eye-piece in ordinary vision, it does not imply that the same eye-piece is the best for photography. He had previously presented arguments going to show that the eye-piece cannot be the best in theory. He also wanted to say that photo-micrography was not a business with him, but rather a recreation. He was compelled to

have things so fixed that he could do the work at odd times when opportunity offered.

W. H. Walmsley said he had worked considerably with Dr. Woodward and could say that his (Woodward's) work was mostly done out of regular hours; indeed much of it was done on Sunday, when other things were still and there was nothing to interfere. These results have never been excelled.

A paper read by title on

Notes upon the Structure of Attacus Cecropia.—H. N. Lyon. (See page 135.)

A paper was then read by the author, on

The Amplifying Power of Objectives and Oculars in the Compound Microscope.—Dr. Blackham. (See page 22.)

In the discussion, Dr. Mercer said (referring to the previous discussion on Mr. Rafter's paper): All the cases cited by the speaker show that the rays leave the eye-lens diverging from each other—(This point was considerably discussed by Drs. Mercer, Blackham and Ward, but the Secretary was unable to report it.)

Mr. Rafter said that it was rarely the case that the magnifying power of objective was just that stated by the manufacturer.

Adjourned.

T. J. BURRILL,
Secretary.

AFTERNOON Session.

The afternoon session was taken up by the Working Session, which is placed under head of "Reports," page 140.

FRIDAY, August 23 A. M., Session.

Meeting called to order by the President at 9 A. M.

The Committee on Nominations presented the names of the following named persons for the respective offices designated:

President.....Geo. E. Fell, Buffalo, N. Y.

Vice-Presidents, {W. H. Seaman, Washington, N. Y.
F. W. Kuhne, Fort Wayne, Ind.

Executive Committee, { Additional {W. P. Manton, Detroit, Mich.
 members, {F. L. James, St. Louis, Mo.
W. H. Walmsley, Philadelphia, Pa.

The Secretary was instructed to cast the ballot of the Society for the persons named, which was duly done and the officers declared elected.

Notices were then made by the Secretary of the death, during the year, of Henry Mills, of Buffalo, and Boardman L. Oviatt, of Ithaca, N. Y. (See "Necrology," page 151.)

The Treasurer's report, audited and found correct, was received and placed on file. (See page 142.)

The Committee on Periodicals and Publications reported that the subject assigned to them had been duly considered, but that a final report had not been agreed upon, and further time was asked. Agreed.

Report of Committee on Examination of Fasoldt's Ruled Plate was here presented. See "Reports," page 140.

The Committee on Constitution and By-Laws reported progress, and was continued.

The report of the Special Committee on Poisonous Meats and Dairy Products being called for, the statement was made that no action had been taken.

Committee discharged.

The resignation of Dr. Mosgrove as Treasurer was, upon recommendation of the Executive Committee, accepted, his other duties making it impossible for him to serve.

C. C. Mellor, of Pittsburgh, was elected to fill the unexpired term—one year.

The following resolution was presented by Dr. Lucien Howe, and referred to the Executive Committee.

Resolved, That the exact name of every object which is to be presented at any meeting of this Society be first submitted to a suitable committee before its exhibition.

On recommendation of the Executive Committee, J. F. Kempker, M. D., Missouri Valley, Iowa, was elected to membership.

A paper was read by its author on:

Bacteria in Ice, especially in their Relation to Typhoid Fever.—Chevalier Q. Jackson, of Pittsburgh. (See page 70.)

A paper was then presented upon:

The Microscope in Diagnosis.—Dr. Geo. E. Fell. (See page 67.)

Dr. Howe would not take the microscope as the principal factor in diagnosis, though in many cases its aid was very great.

Dr. Fell replied that he should not be understood to mean that he would make the microscope the sole factor in diagnosis, but that he considered it in some cases indispensable.

After an announcement of an excursion upon Niagara river for the afternoon, the session adjourned.

T. J. BURRILL,

Secretary.

AFTERNOON Session.

An excursion given by the Microscopical Club of the Buffalo Society of Natural Sciences to the American Society of Microscopists, upon Niagara river, was heartily enjoyed by all on the afternoon of the 23d of August.

After a delightful ride of three hours upon the steamer *Huntress* around Buffalo Harbor, encircling the Government Breakwater, entering the mouth of the Niagara and passing along its historical shores to Navy Island, on the return trip landing was made at "The Macomb," on Grand Island, where a sumptuous collation was in waiting. After the clash of dishes somewhat ceased, toasts were offered by President Lewis, and responses made by Hon. David F.

Day, Dr. Lee H. Smith, Dr. Geo. E. Blackham and Dr. W. C. Barrett.

Dr. W. H. Seaman offered resolutions of thanks and Dr. Geo. E. Fell being called upon, after a few parting words by President Lewis, made a salutary address as President Elect; after which the Society adjourned *sine die*.

T. J. BURRILL,
Secretary.